Subject: Re: 70- "plate scale" and focal length

From: Watt Veruttipong <watt.veruttipong@jpl.nasa.gov>

Date: Tue, 24 Oct 2006 11:42:42 -0700

To: kuiper@jpl.nasa.gov

CC: Watt.Veruttipong@jpl.nasa.gov

Tom:

Attached is the plot for 3.75 inches feed off axis and on axis cases. For the data file, I moved columns around for the plot so they are not organized. Column "A" is angle in degree, "B" is gain in dB and "E" is the corresponding phase in degree (there is a 180 deg phase shift at 0.0 which is not real, software problem).

I do not use the focal length nor focal ratio.
From your number F=176 m, I think it is the "equivalent" focal length of the "best fit" paraboloid of the 70m main reflector.
I did a really rough calculation and I got F about 132 meters.

Watt

At 09:55 AM 10/24/2006, you wrote:

> Dear Watt, based on what you sent me so far, I calculated these numbers:
>
> plate scale: 0.0155 deg / 1.875 in
> = 0.008267 deg/in
> = 0.0032546 deg/cm
> = 0.00568 radians/m
>
> From the latter, I calculate a focal length of 176 m and an effective
> focal ratio of 2.515 (not the focal ratio of the primary).
>
> Do the focal length and focal ratio numbers seem right to you?
>
> Tom

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plot-70m22G_x375.xls

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plot-70m22G_x0.xls